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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,941	06/28/2001	Michael John Davis	60LT01103	1253
23413	7590	05/18/2005	EXAMINER	
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			ROBERTSON, JEFFREY	
			ART UNIT	PAPER NUMBER
			1712	
DATE MAILED: 05/18/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/681,941

Applicant(s)

DAVIS ET AL.

Examiner

Jeffrey B. Robertson

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-28,33-35 and 38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-28,33-35 and 38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Applicant's amendment after final has been entered and as a result of the rejections set forth below, the finality of the last action is withdrawn.

#### ***Double Patenting***

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 2, 3, 4, 9, 12, 13, 18-20, and 22 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 4, 5, 6, 8, 19, 20, and 22-24 of copending Application No. 09/644,012 in view of Clough et al. (U.S. Patent No. 6,518,362).

For claim 18 of the instant application, claims 1 and 22 of the '012 application teach a composition that contains a poly(arylene ether) resin with a number average molecular weight of 8,000-13,000. This is encompassed by the limitation of poly(arylene ether) resin set forth in claim 18. Even though claim 1 of the '012 application is directed to an adhesive, claim 18 as written encompasses adhesive

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formulations. Both claim 18 and claim 1 of the '012 application set forth the presence of a thermosetting resin containing overlapping Markush groups. The compatibilizing agent of instant claim 18 corresponds to the toughening agent of claim 1 where each contains styrene-butadiene-styrene block copolymers. Claim 1 of the '012 application fails to set forth that a plasticizer is added. Claim 22 discloses that a plasticizer effective for poly(arylene ether) resins is added. Amounts of the plasticizer would have been obvious modifications falling within the knowledge of one of ordinary skill in the art. Claim 1 of the '012 application contains a curing agent, but fails to set forth that the curing agent is an amine curing agent.

Clough teaches similar poly(arylene ether) compositions. Clough teaches curing agents including amine curing agents set forth in instant claim 18 in col. 9, lines 39-58. It would have been obvious to one of ordinary skill in the art at the time of the invention to use amine curing agents in the compositions of the '012 application. The motivation would have been that the claims set forth a broad genus of curing agents, but do not disclose particular curing agents. One of ordinary skill in the art would have turned to Clough for that information.

For claims 2, 3, 4, 9, (12 and 22), 13, 19, and 20 of the instant application, see claims 4, 5, 6, 8, 19, 20, 23, and 24 of application '012.

This is a provisional obviousness-type double patenting rejection. Note that even though the '012 application has been allowed, this is a provisional double patenting rejection since the application has not yet issued as a patent.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-11, 14-20, 21, 23-28, 33-35, 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clough (U.S. Patent No. 6,518,362) in view of Mizuno et al. (U.S. Patent No. 5,017,663) and Lee, Jr. et al. (U.S. Patent No. 5,294,655).

The reference teaches a curable composition comprising polyarylene ether, uncured epoxy resin, and a compatibilizer that includes functionalized block copolymers comprising styrene including maleated Kraton polymers. See col. 3, line 20 through col. 5, line 25 and col. 9, lines 39-58. The compositions are prepared by melt blending the components at low temperature so as to not cure the epoxy resin. See col. 10, line 44 through col. 11, line 10. As suggested by the reference, it would have been obvious to combine a polyarylene ether, epoxy resin, a maleated block copolymer comprising styrene Kraton compatibilizer and aromatic polyamine curing agent by melt blending at low temperature to obtain a curable molding composition. Variation in order of addition of components and blending temperature would have been obvious modifications to one of ordinary skill in the art in order to obtain the blend with uncured epoxy resin when using the amine curing agents.

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Mizuno teaches compatibilized polymer blends containing polyphenylene ether resins, epoxy resins, and styrene containing compatibilizers. See col. 2, lines 24-61, col. 13, lines 1-25, and col. 16, line 52 through col. 17, line 15. In columns 23-24, Table 3, Mizuno teaches that maleated styrene block copolymers are used where the block copolymer is maleated styrene-butadiene-styrene. The maleated copolymers are Krayton polymers.

Lee teaches polyphenylene ether compositions that are used for wire coatings containing polyphenylene ether, thermoplastics, and plasticizers such as resorcinol diphosphates in an amount of 1% to 25% by weight. See col. 1, lines 6-10 and col. 7, lines 4-36.

Mizuno, Clough, and Lee are analogous art in that they both come from the same field of endeavor, namely thermoplastic polyphenylene ether compositions that contain block copolymers.

It would have been obvious to one of ordinary skill in the art to use the specific maleated copolymers set forth in Mizuno in the compositions of Clough. The motivation would have been that Clough teaches a genus of functionalized block copolymers comprising styrene including maleated Kraton polymers. One of ordinary skill in the art would have turned to Mizuno for specific species to use for maleated Kraton polymers. It would also have been obvious to one of ordinary skill in the art at the time of the invention to add a plasticizer to the compositions of Clough. The motivation would have been that Lee teaches that in forming coatings for wire applications, the addition of plasticizer is desirable to increase flexibility and workability. See col. 1, lines 12-22 and

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35-60. Since Clough teaches that the compositions taught in the patent are used as protective covercoats and in electronic applications, one of ordinary skill in the art would have been motivated to add a plasticizer for specific application in wire coatings.

### ***Response to Arguments***

6. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

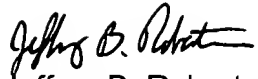
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey B. Robertson whose telephone number is (571) 272-1092. The examiner can normally be reached on Mon-Fri 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Jeffrey B. Robertson  
Primary Examiner  
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JBR